Remarks

Specification:

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner states that "proper antecedent basis should be provided for the claimed limitation "computer program code" in claims 10-18. In response, claims 10-18 have been cancelled.

Claim Objections:

Claim 28 was objected to. The Examiner states that, "[i]t appears that 'wherein the at least decoder comprises:' should be inserted before the limitation 'means for dividing' . . . ." In response, claim 28 has been amended accordingly.

Rejections Under 35 USC 112:

Claims 1-7, 10-16, 19-24, and 28 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention. In particular, the Examiner states that in claims 1-7, the limitation "dividing the information sequence into a current window and at least one additional window", as described in lines 3-4 of claim 1, implies that there may be more than one additional windows. When there are plural additional windows, it is not clear the limitation "the additional window" recited in line 7 and line 8 is referred to "any one of the additional windows" or "all of the additional windows".

In response, claims 1, 19, and 28 have been amended. Specifically, these claims have been amended to state

- computing at least one metric value for a current recursion of the current window based on metric values from another window in a previous iteration, **wherein the another window is from the at least one additional window**

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Rejections Under 35 USC 102:

Claims 1, 3, 4, 6, 8-10, 12, 13, 15, 17-19, 21, 22, 24, 26, and 27 were rejected under 35 USC §102(e) as being anticipated by Classon et al. (US Pat. No. 6,856,657). In rejecting claims 1 and 19, the Examiner states that Classon teaches that one metric value for a current recursion of the current window is computed based on metric values from the additional window, wherein the additional window is from a past iteration. The Examiner states that in step (a) of claim 9, the information is divided and iteration takes place from step (b) through (g). The Examiner concludes that "the additional window of the current iteration is from a past iteration."

In response, independent claims 1, 8, 19, and 26 were amended to more clearly specify the fact that the metric value for the current recursion of the current window is based on metric values from another window in a *previous iteration*. Analysis of Classon reveals that this step is neither taught nor suggested. More particularly, all recursion metric values in Classon are derived from a current iteration. This is clearly suggested in Col. 7, lines 47-51, where Classon states that "At the end of processing the window, any other window can be chosen to be processed as the beginning and end states for each window are re-appoximated without depending on previously defined state information being transferred from adjacent windows."

Because Classon fails to teach or otherwise suggest that recursion values of the current window are based on values from another window in a *previous iteration*, claims 1 and 19 are in proper condition for allowance.

Claim 28 was rejected under 35 USC 102(e) as being anticipated by Xu (US. Pat. No. 6,829,313). In response, claim 28 was amended to include the limitation that the metric value for the current recursion of the current window is based on metric values from another window in a *previous iteration*. Analysis of Xu reveals that this step is neither taught nor suggested. More particularly, all recursion metric values in Xu are derived from a current iteration. This is clearly suggested in Col. 7, lines 40-45, where Xu states that "The present invention differs from the previously described sliding window technique of Fig 5 by providing a variable learning (synchronization) period that can be adjusted for successive windows.".

Because Xu fails to teach or otherwise suggest that recursion values of the current window are based on values from another window in a *previous iteration*, claim 28 is in proper condition for allowance.

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Regarding all other claims, because these claims depend from allowable base claims, all other claims are in proper condition for allowance.

Conclusion

The Applicants' claims clearly have the limitation that the current recursion of the current window is based on metric values from another window in a *previous iteration*. The Applicants wish to note the following to the Examiner:

- An "iteration" of a turbo decoder is a soft-in soft-out (SISO) decoder (e.g., MAP decoder) processing of the entire trellis, which may be broken into windows for convenient processing. The SISO decoder involves alpha and beta recursions over the trellis within the windows.
- "recursion" (alpha or beta) (such as indicated in Fig 1 of prior art Classon) is sometimes designated with past present or future. However, the recursion is within the current (turbo) iteration within a window.
- "Window" is part of a trellis. In Xu, within an iteration, the windows are processed in succession. In Classon claim 9, "repeating step" of selecting the next window to process may be misconstrued as an iteration, where in fact the window selection occur in one iteration of a turbo decoder "until the entire block length N is decoded".

With the above in mind, neither Classon or Xu teach the limitation that values from another window in a *previous iteration*. Because of this, all claims are allowable over the prior art of record.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.   As the Applicant has overcome all substantive rejections given by the Examiner the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's rejections to the pending claims.   Therefore, the Applicant respectfully requests allowance of the application. If the Examiner is of the opinion that

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any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter. Finally, please charge any fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117.

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Respectfully Submitted,
Blankenship, ET AL.

by:_____

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